

# KTP Associate (Research)



## ROLE DESCRIPTION

### SALARY

£40,000-45,000  
per annum

### DURATION

24 Months, fixed  
term

### LOCATION

Codeplay Software  
Ltd, Edinburgh  
Napier University

## KNOWLEDGE TRANSFER PARTNERSHIP Codeplay Software Ltd and Edinburgh Napier University Project Introduction and Details

### Introduction to Knowledge Transfer Partnerships

Mission

“To strengthen the competitiveness and wealth creation of the UK by the stimulation of innovation in industry through collaborative partnerships between the science, engineering and technology base and industry”

Objectives of every Knowledge Transfer Partnership

- to facilitate the transfer of knowledge and the spread of technical and business skills through an innovation project .
- to provide company-based training for the most able graduates in order to enhance their business and specialist skills.
- to stimulate and enhance business relevant research and training undertaken by the knowledge base (universities & public funded research organizations).

## Background

'Knowledge Transfer Partnerships' are an extension of the highly regarded and long established TCS scheme, which is funded by the InnovateUK with 17 other funding organisations. A 'Knowledge Transfer Partnership' enables companies of any size to access additional scientific, engineering or management knowledge and expertise from universities and research organisations and to import new techniques and technologies into their businesses to:

- Improve existing products
- Develop new products
- Streamline a manufacturing process.
- Improve logistics processes; or
- Strengthen strategic marketing capabilities

Around 900 companies - of all sizes and in a very wide range of sectors - are currently participating in Knowledge Transfer Partnerships. It supports the training of about 1000 graduates working on these projects and involves almost every UK University.

## Codeplay Software Ltd

Codeplay Software is a world pioneer in defining and integrating standards-based software that accelerate software development and enabling Artificial Intelligence (AI) and High-Performance Computing (HPC). Established in 2002 it developed some of the first tools enabling complex software to be accelerated using graphics processors.

## Edinburgh Napier University

The School of Computing is a member of a number of software alliance schemes which allows us to offer students of the school a large range of free software. Membership currently includes the Microsoft Academic Alliance (MSAA), the VMWare Academic Program (VMAP) and the iPhone Developer University Program. We are one of only two NVIDIA CUDA Teaching Centres in Scotland, a Cisco Academy Support Centre and an Encase Partner. Students benefit through access to the latest hardware, software and expertise.

The School has a long-established research group in Information Visualization with a focus on applications in a range of domains including biology and security. The School of Computing also hosts the Cyber Academy which is a leading independent and impartial source of skills and knowledge on cyber security, supporting Scotland's businesses and communities to be secure and successful online. Working with a range of companies and organisations on understanding and mitigating risks, and on designing effective measures for prevention, detection, investigation and incident response.

## Employment Details

The successful candidate (KTP Associate) will be employed by the University on a 2 year contract and will be based full time at Codeplay Software Ltd. Although both the academic and industrial supervisors supervise the project on which the Associate is working, the Associate will need to have the capacity to operate and manage the project on a day-to-day basis. Therefore, strong interpersonal skills, self-motivation, and the ability to plan and organise time are required.

## The Knowledge Transfer Partnership

- You will work on a project funded by InnovateUK to develop, test and commercialise a customised deep-learning framework on an open hardware platform for assistive diagnostic applications.
- You will be highly motivated in helping to push the boundaries of knowledge and technology in machine-learning-based computer systems with an open toolchain support.

## The Project objectives are as follows:

- Hardware-software Co-design and test.
- Implementing machine learning and computer vision for medical images analysis.
- Implementing optimisation of medical imaging for modern computer architectures.

The position carries considerable responsibility. The Associate will report directly to the senior management team, therefore good presentation and communication skills are also desirable. Some of the projects will involve working with clients and customers of the company in various locations, which will require strong interpersonal skills.

In return, the position offers the Associate the following benefits:

- A planned programme of training courses
- The support and resources of the University
- A challenging and rewarding job, with real responsibility
- The potential for good career development with the company at the end of the scheme
- The possibility of registering for a higher degree with the University
- The opportunity to make important and tangible improvements in a small but dynamic company
- Competitive pay and working conditions

## PERSON SPECIFICATION

ESSENTIAL

DESIRABLE

### EDUCATION / QUALIFICATIONS

- Master level qualification in Computer Science, Electronics, or a related discipline



### SKILLS / EXPERIENCE

- Experience with machine learning techniques and developing software architectures based on machine learning frameworks
- Experience with C++ programming languages
- Experience with any code acceleration paradigm in FPGA
- Project evaluation planning with multiple participants, Written and oral communication skills, Professionalism and highest standards of honesty and integrity



- Practical experience of FPGA integration and programming.



- Experience on SYCL/OpenCL



- knowledge or experience with compilers or other code optimization tools

